

WHAT IS CLAIMED:

1 1. A RF test interconnection system for connecting a
2 measurement device to a device under test, said system
3 comprising:

4 a probe card having a probe extending from a first side of
5 said probe card for making electrical contact with said
6 device under test and a probe card coaxial connector
7 extending from a second side of said probe card, said
8 probe and said probe card coaxial connector being in
9 electrical communication;

10 a test head having a test head coaxial connector adapted to
11 mate with said probe card coaxial connector when said
12 probe card and said test head are urged together, said
13 test head coaxial connector being connectable to said
14 measurement device; and

15 a de-mating device attached to one of said probe card and
16 said test head for urging said probe card and said test
17 head apart by applying a separating force therebetween,
18 said probe card and said test card coaxial connectors
19 being electrically connected when said test head and
20 said probe card are urged together by a connection
21 force and electrically disconnected when said
22 connection force is removed.

1 2. A system according to claim 1, wherein said de-mating
2 device is a spring-loaded plunger.

1 3. A system according to claim 1, wherein said de-mating
2 device is attached to said test head.

1 4. A system according to claim 1, wherein said probe card
2 coaxial connector includes a female inner receptacle and a female
3 outer barrel and said test head coaxial connector includes a male
4 center pin and a male outer barrel, said receptacle and pin
5 slidably mating when said probe card and test head are urged
6 together and said male and female barrels slidably mating when
7 said probe card and said test head are urged together.

1 5. A system according to claim 1, wherein said coaxial
2 connectors include a compression member that maintains
3 compressive contact between the connectors when said probe card
4 and said test head are urged together.

1 6. A system according to claim 1, further comprising
2 tapering male extensions cooperating with female receptors to
3 assist in aligning said connectors.

1 7. A system according to claim 1, further comprising
2 tapering female receptors cooperating with male extensions to
3 align said connectors.

1 8. A RF test interconnection system for connecting a
2 measurement device to a device under test, said system
3 comprising:

4 a probe card having a probe extending from a first side of
5 said probe card for making electrical contact with said
6 device under test and a probe card coaxial connector
7 extending from a second side of said probe card, said
8 probe and said probe card coaxial connector being in
9 electrical communication and said probe card coaxial

1 connector includes a female inner receptacle and a
2 female outer barrel;

3 a test head having a test head coaxial connector adapted to
4 mate with said probe card coaxial connector when said
5 probe card and said test head are urged together, said
6 test head coaxial connector being connectable to said
7 measurement device and said test head coaxial connector
8 includes a male center pin and a male outer barrel; and

9 a spring-loaded plunger attached to one of said probe card
10 and said test head for urging said probe card and said
11 test head apart by applying a separating force
12 therebetween, said probe card and said test card
13 coaxial connectors being electrically connected when
14 said test head and said probe card are urged together
15 by a connection force and electrically disconnected
16 when said connection force is removed, wherein said
17 receptacle and pin slidably mate when said probe card
18 and test head are urged together and said male and
19 female barrels slidably mate when said probe card and
20 said test head are urged together.

1 9. A system according to claim 8, wherein said plunger is
2 attached to said test head.

1 10. A system according to claim 8, wherein said coaxial
2 connectors include a compression member that maintains
3 compressive contact between the connectors when said probe card
4 and said test head are urged together.

1 11. A system according to claim 8, further comprising
2 tapering male extensions cooperating with female receptors to
3 align said connectors.

1 12. A system according to claim 8, further comprising
2 tapering female receptors cooperating with mail extensions to
3 align said connectors.